

## **Self Optimizing Off Chip Driver**

### **ABSTRACT OF THE DISCLOSURE**

The present invention provides apparatus and methods to eliminate a required "dead cycle" or "live cycle" during transfer of control from a first source terminated driver to a second source terminated driver on a bidirectional signaling conductor. On a last bus cycle on which the first driver drives the signaling conductor, the first driver stops driving and goes into a high impedance state respondent to detection that the first driver current has become lower than a predetermined current or that a voltage at the output of the first driver has become within a predetermined voltage difference of a target voltage. The second driver, knowing that the first driver will be switched to a high impedance state, can assume control of the signaling wire and drive a signal on the signaling conductor shortly after receipt of the signal from the first driver.